



ATK Launch Systems Integrated, Automated DG Technologies Demonstration – Phase I Extension

Project Description

ATK Launch Systems in Promontory, Utah comprises over 540 buildings on a sprawling 19,900-acre site accessible by 75 miles of roads. Their power system of three main substations and 60 miles of power lines deliver about 17 MW (on-peak) to the facilities, with an annual energy bill of over \$15 million. The objective of this project is to "develop and demonstrate a diverse system of renewable distributed generation technologies that are integrated into an intelligent automation system with two-way communications to the utility and that will produce an on-demand reduction of 15% of substation load." The ATK Launch Systems Demonstration Project technology includes: Renewable Energy Sources, which are waste heat recovery systems – 100 kW of generation, wind turbines (water pumping/compressed air storage) – 100 kW total capacity, and 500 kW of total storage capacity. The wind and waste heat generators will provide energy to recharge the storage systems. The project includes load aggregation and monitoring, fault detection and diagnostics, remote monitoring and control, two-way customer-utility web interface, black start, historical trending and reports, as well as alarm and event notification.

Goals/Objectives

- Develop and demonstrate a diverse system of renewable distributed generation technologies that are integrated into an intelligent automation system with two-way communications to the utility
- Produce an on-demand reduction of 15% of substation load.

Key Milestones

- Design and Test Reliable and Effective DG Controls (Q4 2009)
- Design and Test of Utility Gateway Hardware and Software (October 2009)
- Design and Install Generation Equipment (October 2009)
- Implement DG and Collect Data (October 2013)

Benefits

- Demonstrate a working microgrid
- Data collection for renewable generation
- Lower energy costs

CONTACTS

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PARTNERS

ATK Space Systems
P&E Automation
Rocky Mountain Power (PacifiCorp)

PROJECT DURATION

9/30/2008–9/30/2014

COST

Total Project Value
\$2,685,162
DOE/Non-DOE Share
\$2,148,129/\$537,033

DEMONSTRATION STATES

Utah

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